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ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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JAMES W. WARR
DIRECTOR

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GOVERNOR

October 9, 2001

Mr. Darrell G. Brewer, Executive Assistant
Redstone Arsenal Support Activity
US Army Aviation and Missile Command
Redstone Arsenal, Alabama 35898-5000

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Re: Renewal of Solid Waste Disposal Permit
Redstone Arsenal Landfill/45-03

Dear Mr. Brewer:

ADEM has made a determination to renew the Solid Waste Disposal Facility Permit for the Redstone Arsenal Landfill. The permit is enclosed.

If you have any questions about the permit or any other matter regarding the landfill, please contact Bill Wood at 334-271-7767.

Sincerely,



James L. Bryant, Chief
Solid Waste Branch
Land Division

JLB/BW:word/L:BillWood.doc\swtech\mad\45-03Renewal.pg11

Enclosure

c: Mr. Woodfin Nichols, Land Division

File: Madison Co/Redstone Arsenal LF/45-03



ADEM



ALABAMA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

SOLID WASTE DISPOSAL FACILITY PERMIT

PERMITTEE: U.S. Army/Redstone Arsenal

FACILITY NAME: Redstone Arsenal Landfill

FACILITY LOCATION: SE ¼ Section 5, T5S, R1W, Madison County.

PERMIT NUMBER: 45-03

PERMIT TYPE: Construction/Demolition (C/D) Landfill

WASTE APPROVED FOR DISPOSAL: Non-hazardous construction/demolition and asbestos wastes including waste building materials, packaging, and rubble from construction, remodeling or demolition operations, concrete and masonry wastes, sheetrock, roofing waste, insulation, scrap metal, wood wastes, soil, rock, yard trimmings, leaves, waste asphalt, ash from wood combustion, and similar types of wastes.

APPROVED WASTE VOLUME: Average Daily Volume of 600 Cubic Yards per Day

APPROVED SERVICE AREA: Redstone Arsenal reservation

In accordance with and subject to the provisions of the Solid Waste Disposal Act, as amended, Code of Alabama 1975, SS 22-27-1 to 22-27-27 ("SWDA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, SS 22-22A-1 to 22-22A-15, and rules and regulations adopted thereunder, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to dispose of the above-described solid wastes at the above-described facility location.

ISSUANCE DATE: October 9, 2001

EFFECTIVE DATE: October 9, 2001

EXPIRATION DATE: October 8, 2006

Alabama Department of Environmental Management

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
SOLID WASTE DISPOSAL FACILITY PERMIT**

Permittee: U.S. Army/Redstone Arsenal

Landfill Name: Redstone Arsenal Landfill

Landfill Location: Redstone Arsenal
Section 5, T5S, R1W, Madison County, Alabama

Permit Number: 45-03

Landfill Type: Construction/Demolition (C/D) Landfill

Pursuant to the Solid Wastes Disposal Act, Code of Ala. 1975, Section 22-27-1, et seq., as amended, and attendant regulations promulgated thereunder by The Alabama Department of Environmental Management (ADEM), a permit is issued to the U.S. Army/Redstone Arsenal (hereinafter called the Permittee) to operate a solid waste disposal facility, known as the **Redstone Arsenal Landfill**, which comprises approximately 76 acres within the Southeast $\frac{1}{4}$ of Section 5, Township 5 South, Range 1 West, Madison County, Alabama. The site is also described in Section VIII and Appendix I of this permit.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions set forth herein (including those in any attachments), and the applicable regulations contained in Chapters 335-13-1 through 335-13-8 of the Alabama Department of Environmental Management Administrative Code (attached as Appendix II and hereinafter referred to as the "ADEM Admin. Code"). Applicable ADEM Admin. Codes are those which are in effect on the date of issuance of this permit.

This permit is based on information submitted with the Permittee's letters of September 17, 1993, August 30, 1994, and October 19, 1995 for the permit issued December 21, 1995. It is also based on the information submitted with the Hodges, Harbin, Newberry & Tribble, Inc. letter of April 30, 1997 for the modification of September 26, 1997, and on the information submitted for the permit renewal with the Permittee's letters of October 12 and December 8, 2000. (All of the above information is hereby incorporated by reference and hereinafter referred to as the Application). Any inaccuracies found in this information could lead to the termination or modification of this permit and potential enforcement action (Chapter 335-13-5 of the ADEM Admin. Code). The Permittee must inform ADEM of any deviation from or changes in the information in the Application that would affect the Permittee's ability to comply with the applicable ADEM Admin. Code or permit conditions.

This permit is effective on October 9, 2001, and shall remain in effect until October 8, 2006 unless suspended or revoked (See Rule 335-13-5-.05).


Alabama Department of Environmental Management

10/09/01
Date Signed

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SECTION I: - STANDARD CONDITIONS

A. EFFECT OF PERMIT

The Permittee is allowed to dispose of non-hazardous solid waste in accordance with the conditions of this permit, and ADEM Admin. Codes, Div. 13. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local laws or regulations. Compliance with the terms of this permit does not constitute a defense to any action brought under Code of Ala. 1975, Section 22-27-1, et. seq., as amended, or any other law governing protection of public health or the environment for any imminent and substantial endangerment to human health, welfare, or the environment.

B. PERMIT ACTIONS

This permit may be suspended, revoked or modified for cause as specified in Rules 335-13-5-.05 or 335-13-5-.06 of the ADEM Admin. Code. The filing of a request for a permit modification, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, and the suspension or revocation does not stay the applicability or enforceability of any permit condition.

C. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

D. DEFINITIONS

For the purpose of this permit, terms used herein shall have the same meaning as those in Chapters 335-13-1 through 335-13-8 of the ADEM Admin. Code, unless this permit specifically provides otherwise; where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

1. "EPA" for purposes of this permit means the United States Environmental Protection Agency.

2. "Permit application", for the purposes of this permit, means all permit application forms, design plans, operational plans, closure plans, technical data, reports, specifications, plats, geological and hydrological reports, and other materials which are submitted to the Department in pursuit of a solid waste disposal permit pursuant to the requirements of Chapters 335-13-4 and 335-13-5.

E. DUTIES AND REQUIREMENTS

1. Duty to Comply

The Permittee must comply with all conditions of this permit except to the extent and for the duration such noncompliance is authorized by a variance granted pursuant to Rule 335-13-8-.01. Any permit noncompliance, other than noncompliance authorized by a variance, constitutes a violation of Code of Ala. 1975, Section 22-27-1 et. seq., as amended, and is grounds for enforcement action, permit suspension, revocation, modification, and/or denial of a permit renewal application.

2. Need to Halt or Reduce Activity Not A Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit (see Rules 335-13-4-.21(1)(a) and 335-13-4-.23(1)(d) of the ADEM Admin. Code).

3. Duty to Mitigate

In the event of noncompliance with this permit, the Permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

4. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of control (and related appurtenances) that are installed or used by the Permittee to achieve compliance with the conditions of this permit.

5. Duty to Provide Information

If requested, the Permittee shall furnish to the Department, within a reasonable time, any relevant information needed to determine whether cause exists for denying, suspending, revoking, or modifying this permit, or to determine compliance with this permit. If requested, the Permittee shall also furnish the Department with copies of records kept as a requirement of this permit (see Rule 335-13-5-.05 and 335-13-5-.06 of the ADEM Admin. Code).

6. Inspection and Entry

Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the duly designated officer and employees of the Department or their authorized representative to:

- a. Enter at reasonable times the Permittee's premises where the regulated facility or activity is located or conducted; or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor, at reasonable times, any substances or parameters at any location for the purposes of assuring permit compliance or as otherwise authorized by Code of Ala. 1975, Section 22-27-1 et. seq., as amended. (See Rule 335-13-6-.01 of the ADEM Admin. Code)

7. Monitoring, Corrective Actions, and Records

- a. Samples and measurements taken for the purpose of monitoring or corrective action shall be representative of the monitored activity. The methods used to obtain representative samples to be analyzed must be the appropriate method from Chapter 335-13-4 of the ADEM Admin. Code or the methods as specified in the Permit Application attached hereto and incorporated by reference. Laboratory methods must be those specified in Standard Methods for the Examination of Water and Wastewater (American Public Health Association, latest edition), Methods for Chemical Analysis of Water and Wastes (EPA-600/4-79-020), Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (EPA Publication SW-846, latest edition), other appropriate EPA methods, or as specified in the permit application. All field tests must be conducted using approved EPA test kits and procedures (see Rules 335-13-4-.14(1)(b) and 335-13-4-.14(1)(c)).

- b. The Permittee shall retain records, at the location specified in Part G of Section I, of all monitoring, or corrective action information, including all calibration and maintenance records, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least three years from the date of the sample, measurement, report or record or for periods elsewhere specified in this permit. These periods may be extended by the request of the Department at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility (see Rules 335-13-4-.14 and 335-13-4-.16).
- c. Records of monitoring and corrective action information shall include :
 - i. The exact place, date, and time of sampling or measurement;
 - ii. The individual(s) and company who performed the sampling or measurements;
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) and company who performed the analyses;
 - v. The analytical techniques or methods used; and
 - vi. The results of such analyses.
- d. The Permittee shall submit all monitoring and corrective action results at the intervals specified elsewhere in this permit.

8. Reporting Planned Changes

The Permittee shall notify the Department, in the form of a request for permit modification, at least 90 days prior to any change in the permitted service area, increase in the waste received, or change in the design or operating procedures as described in this permit, including any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements, in accordance with Rule 335-13-5-.02(4) of the ADEM Admin. Code.

9. Certification of Construction

The Permittee may not commence disposal of waste in any new Cell/Phase until the Permittee has submitted to the Department, by certified mail or hand delivery, a letter signed by both the Permittee and a registered professional engineer stating that the facility has been constructed in compliance with the permit.

10. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule required and approved by the Department shall be submitted no later than 14 days following each schedule date.

11. Other Noncompliance

The Permittee shall report all instances of noncompliance at the time monitoring reports are submitted.

12. Other Information

If the Permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be promptly submitted by the Permittee. In addition, upon request, the Permittee shall furnish to the Department any information related to compliance with the permit.

F. DESIGN AND OPERATION OF FACILITY

The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of contaminants (including leachate and explosive gases) to air, soil, groundwater, or surface water which could threaten human health or the environment.

G. DOCUMENTS TO BE MAINTAINED BY THE PERMITTEE

The Permittee shall maintain, at **Redstone Arsenal**, the following documents and amendments, revisions and modifications to these documents until closure is certified by an independent registered engineer (State of Alabama):

1. Personnel training documents and records as required by Rule 335-13-4-.21(1)(b) of the ADEM Admin. Code.
2. Closure Plan as required by Rule 335-13-4-.20 of the ADEM Admin. Code and Section VII of this permit.
3. Operating record as required by this permit.

4. Inspection schedules and records as required by Rule 335-13-4-.21(1)(b) of the ADEM Admin. Code.
5. Maintenance and Monitoring Records (Gas, Water, etc.) as required by Rules 335-13-4-.16(2), and 335-13-4-.20(2)(h) of the ADEM Admin. Code.
6. Copies of this Permit and of the Permit Application.

H. MAILING LOCATION

All reports, notifications, or other submissions which are required by this permit should be sent via mail or hand delivered to:

Mailing Address:

Chief, Solid Waste Branch, Land Division
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, AL 36130-1463

Physical Address:

Chief, Solid Waste Branch, Land Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2059

I. SIGNATORY REQUIREMENT

All applications, reports or information required by this permit, or otherwise submitted to the Department, shall be signed and certified by the owner as follows:

1. If an individual, by the applicant;
2. If a city, county, or other municipality or governmental entity, by the ranking elected official, or by a duly authorized representative of that person;
3. If a corporation, organization, or other legal entity not addressed above., by a principal executive officer, of at least the level of Vice President, or by a duly authorized representative of that person.

J. CONFIDENTIAL INFORMATION

The Permittee may claim information submitted as confidential if the information is protectable under Code of Alabama 1975 §§ 22-39-18, as amended.

K. STATE LAWS AND REGULATIONS

Nothing in this permit shall be construed to preclude the initiation of any legal action or to relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation.

SECTION II: - GENERAL OPERATING CONDITIONS

A. INDUSTRIAL WASTE DISPOSAL

The Permittee shall not dispose of industrial process waste.

B. OPEN BURNING

The Permittee shall not allow open burning without prior approval from the Department and other appropriate agencies.

SECTION III: - SPECIFIC REQUIREMENTS FOR LANDFILL

A. WASTE IDENTIFICATION AND MANAGEMENT

1. Subject to the terms of this permit, the Permittee may dispose of the non-hazardous solid wastes listed in Table 1. Disposal of any other wastes is prohibited.
2. The size of the facility is approximately 76 acres as described in Section VIII of this permit, and the area permitted for disposal is approximately 43 acres as depicted in the application drawings.
3. The Permittee shall maintain and operate the facility in accordance with the procedures described as required by the Alabama Department of Environmental Management Administrative Code Division 13 Regulations.
4. The average daily volume of waste disposed at the facility shall not exceed 600 cubic yards per day, except as provided under Rule 335-13-5-.06(2)(a)5. The average daily volume shall be computed as specified by Rule 335-13-5-.06(2)(a)5.(i).
5. The Permittee shall receive waste for disposal only from the Redstone Arsenal reservation, as listed in Table 1, except waste which is granted a temporary or one-time waiver by the Director pursuant to Rule 335-13-5-.06(1)(a)1.

SECTION IV: - GROUNDWATER MONITORING REQUIREMENTS

The monitoring of the groundwater at the facility will be conducted under the remedial investigation/feasibility study (RI/FS) of Site RSA-010 in Operable Unit 6, in response to the federal Comprehensive Environmental Response Compensation and Liability Act (CERCLA). This RI/FS will be monitored by ADEM's Governmental Facilities Section (GFS), Hazardous Waste Branch, Land Division.

SECTION V: - GAS MONITORING REQUIREMENTS

The Permittee shall maintain the gas monitoring system described in the Methane Monitoring Plan, in Appendix B of the Operation Plan of April 1997, as revised June 26, 1997, or a system as required by 335-13-4-.16.

SECTION VI: - WATER MANAGEMENT REQUIREMENTS

The Permittee shall construct and maintain run-on and run-off control structures as required by Rule 335-13-4-.17. Any discharges from said drainage control structures shall be permitted by the Alabama Department of Environmental Management Water Division.

SECTION VII: - CLOSURE AND POST-CLOSURE REQUIREMENTS

A. CLOSURE REQUIREMENTS

The Permittee shall close the landfill in accordance with ADEM Administrative Code, Division 13 as provided in Appendix II.

B. POST-CLOSURE REQUIREMENTS

The Permittee shall perform Post-Closure care of the landfill in accordance with ADEM Administrative Code, Division 13 as provided in Appendix II.

SECTION VIII: - LEGAL DESCRIPTION

Said parcel of land within the Redstone Arsenal reservation, in the Southeast $\frac{1}{4}$ of Section 5, Township 5 South, Range 1 West, Madison County, as described in Appendix I of this permit.

TABLE 1.

APPROVED WASTE STREAMS AND SERVICE AREA

WASTE STREAMS:

Construction/Demolition and Asbestos Wastes including:

Waste building materials, packaging, and rubble from construction, remodeling or demolition operations, concrete and masonry wastes, sheetrock, roofing waste, insulation, scrap metal, wood wastes, soil, rock, yard trimmings, leaves, waste asphalt, ash from wood combustion, and similar types of wastes.

Note: The wastes listed above must not contain restricted (non-permitted) wastes, including free liquids, containers over 5 gallons unless punctured and crushed, and medical, hazardous, toxic, and radioactive wastes.

SERVICE AREA:

The service area for the Redstone Arsenal Landfill is the Redstone Arsenal reservation.

APPENDIX I.

LEGAL DESCRIPTION OF LANDFILL

Commence at the Southwest corner of the Southeast 1/4 of the Southeast 1/4 of Section 5, Township 5 South, Range 1 West, thence North 01 degrees 19' 14" East a distance of 696.12 feet to the point of beginning, thence South 85 degrees 34' 14" West a distance of 297.61 feet, thence North 0 degrees 25' 09" West a distance of 274.56 feet, thence North 44 degrees 58' 51" West a distance of 741.08 feet, thence North 0 degrees 03' 29" East a distance of 1474.14 feet, thence North 88 degrees 33' 21" East a distance of 1106.86 feet, thence South 18 degrees 15' 47" East a distance of 427.16 feet, thence South 24 degrees 02' 19" East a distance of 2063.70 feet, thence North 89 degrees 25' 46" West a distance of 1260.00 feet to the point of beginning said parcel containing 75.96 acres more or less.

